Watershed Assessment and Planning Branch
Surface Water Quality Monitoring Programs 2021

Probabilistic Monitoring	2021	Parameters
Watershed or Waterbody Name(s)	Patoka River	*E. coli*, Aluminum, Antimony, Arsenic, Calcium, Cadmium, Chromium, Copper, Lead, Magnesium, Nickel, Selenium, Silver, Zinc, Alkalinity, Total Solids, Dissolved Solids, Total Suspended Solids, Sulfate, Chloride, Hardness, TKN, Ammonia- Nitrogen, Nitrate/Nitrite, Total Phosphorous, TOC, Cyanide-Total, Cyanide-Weak Acid Dissociable, Chemical Oxygen Demand, Dissolved Oxygen, D.O. Saturation, pH, Specific Conductance, Temperature, Turbidity, Fish, Macroinvertebrates, Diatoms, Periphyton, Seston, Habitat, continuous Dissolved Oxygen and Orthophosphate (@ subset of 18 target sites, minimum 2 weeks)
Hydrologic Unit Code(s)	05120209	

Watershed Assessment and Planning Branch
Surface Water Quality Monitoring Programs 2021

Reference Site Monitoring	Year: 2021	Parameters
Stream/River or Watershed(s)	05120108 Middle Wabash-Little Vermillion (n=3); 05120110 Sugar (n=3); 05120111 Middle Wabash-Busseron (n=3); 05120203 Eel (n=3); Deer Creek (n=2); Tippecanoe R.; 05120202 Little Mill Creek; 05120207 Muscatatuck - Vernon Fork Muscatatuck (n=2, also in Watershed Characterization Project); Otter Cr.; Sugar Cr	Aluminum, Antimony, Arsenic, Calcium, Cadmium, Chromium, Copper, Lead, Magnesium, Nickel, Selenium, Silver, Zinc, Alkalinity, Total Solids, Dissolved Solids, Total Suspended Solids, Sulfate, Chloride, Hardness, TKN, Ammonia-Nitrogen, Nitrate/Nitrite, Total Phosphorous, TOC, Chemical Oxygen Demand, Dissolved Oxygen, D.O. Saturation, pH, Specific Conductance, Temperature, Turbidity, Fish, Macroinvertebrates, Periphyton, Seston, Chlorophyll *a*, Habitat
Fixed Station Monitoring	**Parameters**	
165 sites throughout all 9 watersheds: Divided into 16 routes sampled monthly	**CHEMISTRY** (dissolved vs. total metals at 12 selected sites geographically representative): Alkalinity, Hardness, Calcium, Magnesium, Ammonia-N, Nitrate+Nitrite-N, Nitrogen-TKN, Phosphorous-Total, COD, TOC, BOD, Solids-Total, Solids-Suspended, Solids-Dissolved, Fluoride, Chloride, Sulfate, Cyanide-Total, Cyanide-Free, Cyanide-Amenable, Arsenic (µg/l), Cadmium (µg/l), Chromium-Total (µg/l), Copper(µg/l), Iron (µg/l), Lead (µg/l), Manganese (µg/l), Nickel (µg/l), Potassium (µg/l), Sodium (µg/l), Zinc (µg/l), *E. coli*, **FIELD**: Turbidity, DP, pH, Temperature, Specific Conductance, Weather coding **ORGANICS/PESTICIDES** (select sites, drinking water intakes): Hexachlorocyclopentadiene, Desethylatrazine, Desisipropylatrazine, Hexachlorobenzene, Simazine, Atrazine, Cloazone, Pentachlorophenol, Lindane, Acetochlor, Alachlor, Heptachlor, Metolachlor, Chlorpyrifos, Cyanazine, Penimethalin, Heptachlor Epoxide, Ocychlordane, Gamm-Chlordane, Alpha-Chlordane, Trans-Nonachlor, endrin, Cis-Nonachlor, P,P'-DDT, Bis(2-Ethylhexyl)adipate, Methoxychlor, Bis(-Ethylhexyl)phthalate, Benzoapyrene, Trifluralin, Aldrin, Dieldrin, Propachlor	

Watershed Assessment and Planning Branch
Surface Water Quality Monitoring Programs 2021

Watershed Characterization Studies	Year: 2021	Parameters
Watershed or Waterbody Name(s)	Vernon Fork Muscatatuck River	**CHEMISTRY** monthly, Alkalinity (as CaCO3), Solids, Total Residue (TS), Solids, Nonfilterable Residue (TSS) Solids, Filterable Residue (TDS), Sulfate (Dissolved), Chloride, Hardness (as CaCO3), Nitrogen, as Ammonia, Nitrogen, Kjeldahl (TKN), Nitrogen, Nitrate-nitrite, Phosphorous, Total Organic Carbon (TOC), Chemical Oxygen Demand, Calcium, Magnesium **FIELD**: pH, DO, D.O saturation, Temperature, Turbidity, and Specific Conductance. ***E. coli*** will be done 5X **Biological**: Fish, Macroinvertebrates, Habitat
Hydrologic Unit Code(s)	0512020707	
Fish Tissue Monitoring	Year: 2021	Parameters
Watershed or Waterbody Name(s)	West Fork White River and Patoka River basins. Sites TBD.	Percent Moisture, Percent Lipid, PCBs, Organochlorine-Pesticides, Cadmium, Selenium, Lead, Total Mercury, Methylmercury, Polychlorinated Biphenyl, and Per- and Polyfluoroalkyl substances
Hydrologic Unit Code(s)		

Watershed Assessment and Planning Branch
Surface Water Quality Monitoring Programs 2021

Toxic Algae Monitoring	Year: 2021	Parameters
Waterbody Name(s)	**Designated swimming beaches in the lakes at the following state owned parks or managed recreation areas:** Potato Creek, Pokagon (2 beaches), Chain-o-Lakes, Mississinewa, Salamonie, Oubache, Raccoon Lake (aka Cecil M. Harden Reservoir), Monroe (2 beaches), Hardy, Whitewater, Brookville (2 beaches), Deam Lake,Starve Hollow, Cagles Mill, Ft. Harrison State Park Dog Park Lake	Cyanobacterial Identification and Cell Enumeration, Microcystin, Cylindrospermopsin, Anatoxin a, and Saxotoxin toxin analysis
Special Project	**Year: 2021**	**Parameters**
Coolwater Stream Monitoring	90 sites (TBD) with Thermologgers 45/90 sites sampled for chemical, biological, and physical/habitat parameters.	Aluminum, Antimony, Arsenic, Calcium, Cadmium, Chromium, Copper, Lead, Magnesium, Nickel, Selenium, Silver, Zinc, Alkalinity, Total Solids, Dissolved Solids, Total Suspended Solids, Sulfate, Chloride, Hardness, TKN, Ammonia-Nitrogen, Nitrate/Nitrite, Total Phosphorous, TOC, Chemical Oxygen Demand, Dissolved Oxygen, D.O. Saturation, pH, Specific Conductance, Continuous Temperature taken every 30 minutes and downloaded every other month, Turbidity, Fish, Macroinvertebrates, Habitat

Watershed Assessment and Planning Branch
Surface Water Quality Monitoring Programs 2021

Performance Measure Monitoring	**Year: 2021**	Parameters
Watershed or Waterbody Name(s)	Vestal Branch – Indian Creek, Prairie Creek, Big Pine Creek Ditch – Big Pine Creek, Lafferty Ditch – Eel River, Thunderbird Pond – Turman Creek, Town of Dodds Bridge – Turman Creek.	**CHEMISTRY** may vary from year to year depending on the impaired listing, BMPs implemented, critical areas, & land use. Ammonia-Nitrogen, Total Phosphorus, Nitrate/Nitrite, Total Kjeldahl Nitrogen, Dissolved Solids, Suspended Solids. **FIELD**: pH, DO, D.O. saturation, temperature, turbidity, and specific conductance. ***E. coli*** will be done 5X if necessary. **Biological**: Fish, Macroinvertebrates, Habitat
Hydrologic Unit Code(s)	051401010201, 051201070305, 051201080402, 051202030805, 051201111201, 051201111203.	